

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-10 (Canceled).

Claim 11 (Previously Added). A method for detecting a DNA polymorphism in a double strand DNA, said method comprising the steps of (a) to (e) below:

(a) contacting (i) a double strand DNA comprising a test polymorphic site, (ii) an oligonucleotide probe that hybridizes to a region comprising said polymorphic site in said double strand DNA, and (iii) a homologous recombination protein under reaction conditions where a triple strand DNA complex is formed,

(b) removing the homologous recombination protein from the triple strand DNA complex formed in the step (a), thereby generating a triple strand DNA,

(c) conducting heat treatment of the triple strand DNA generated by removing the homologous recombination protein, under conditions where the oligonucleotide probe is released from said triple strand DNA, when the test polymorphic site in the double strand DNA is not complementary to a corresponding site in said oligonucleotide probe,

(d) determining the existence or the absence of an oligonucleotide probe that binds to the double strand DNA to form the triple strand DNA,

(e) judging that (i) SNP exists in the DNA region complementary to the oligonucleotide probe in the target double strand DNA when no oligonucleotide

probe is detected, (ii) no SNP exists in the DNA region complementary to the oligonucleotide probe in the target double strand DNA when the existence of oligonucleotide probe that binds to triple strand DNA is detected.

Claim 12 (Previously Added). The method of claim 11, wherein the double strand DNA comprising a test polymorphic site has a DNA terminus.

Claim 13 (Previously Added). The method of claim 12, wherein the test polymorphic site is located within 20 bases from the DNA terminus.

Claim 14 (Previously Added). The method of claim 11, wherein the length of the oligonucleotide probe is from 20 to 120 bases.

Claim 15 (Previously Added). The method of claim 11, wherein the homologous recombination protein is a RecA protein from E. coli.

Claim 16 (Previously Added). The method claim 11, wherein, in the step (a), a nucleotide triphosphate is added to the reaction system.

Claim 17 (Previously Added). The method of claim 11, wherein, in the step (b), the homologous recombination protein is removed by conducting protein degradation enzyme treatment.

Claim 18 (Previously added). The method of claim 17, wherein the protein degradation enzyme is proteinase K.

Claims 19-20 (Canceled).